

Docket No.: 50325-0080

PATENT

#13 3621-  
7-9-03  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of

Jonathan TROSTLE et al.

Serial No. 09/482,156

Filed: January 12, 2000

For: DIRECTORY ENABLED SECURE MULTICAST GROUP COMMUNICATIONS

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Group Art Unit: 3621

Examiner: Sherr, Cristina O.

RESPONSE

Mail Stop AF – NO FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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GROUP 3600

Sir:

In response to the first Office Action mailed May 7, 2003, which has a shortened statutory period that runs until August 7, 2003, re-consideration of the application is respectfully requested.

The Applicants thank the Examiner for performing a thorough search.

ISSUES RELATING TO PRIOR ART

Claims 1-30 have been rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Angelo et al., U.S. Pat. No. 6,119,228 B1 (hereinafter "Angelo"). The rejection is respectfully traversed.

In general, although the Office Action parroted the claim language and thereby alleged

that every claimed feature for all of claims 1-30 was shown in column 3, lines 21-63, it is not clear where in column 3, lines 21-63 these features can be found, especially considering that in general the terms of the claims are not used in Angelo, let alone in column 3, lines 21-63.

Should the Examiner maintain these rejections, she is respectfully requested to specifically point out which features disclosed in Angelo correspond to each of the claimed features, and (where appropriate) to provide rationale for her holding.

**A. Independent Claims 1, 10, 19, and 26.**

Column 3, lines 21-63 of Angelo, cited by the Examiner, includes (column 3, lines 30-52),

According to the invention, a network administrator or network management software creates a shutdown (or other control command) record including an index or time stamp with the date and time on which the shutdown record was created. A secure one-way hash function is then performed on the shutdown record. The result of the one-way hash function is encrypted using the network administrator's private key, thereby generating a digital signature of the shutdown record that can be verified by network nodes using the network administrator's public key. The digital signature is appended to the original shutdown record prior to broadcast to the network.

Following detection of a broadcast message addressed to it, a network computer according to the invention is able to validate the broadcast message by verifying the digital signature of the packet or frame. In the disclosed embodiment, the validation process is performed by decrypting the hash value representation of the shutdown record using the network administrator's public key. A one-way hash function is also performed on the original shutdown record portion of the received message. If the two hash values match, the broadcast message is determined to be authentic and the shutdown control code is executed.

In other words, in Angelo a shutdown record is created by a network administrator. A hash function is then applied to the shutdown record. The output of the hash function is encrypted using the administrator's private key and appended to the original shutdown message. The shutdown message is then broadcasted to the network. Upon receipt, the hash value is decrypted

and the hash function is applied to the original shutdown message. If the decrypted hash value and the hash value from the hash function applied to the original shutdown message agree, then the remote computer is shutdown.

In contrast, claim 1, lines 8-12, and claim 26, lines 11-15, recite

*registering* the subscribers and the publishers with an *event server* configured to determine *whether the publishers are authorized to produce certain events* corresponding to event types and *whether the subscribers are authorized to receive the certain events* in response to the step of registering...(emphasis added).

Similar subject matter is recited in the event server of claim 10, lines 8-12, and the memory of the one or more processors of the event server of claim 19, lines 15-22. Taking each of the emphasized features in turn, regarding the first feature emphasized above, the Office Action has not explained where Angelo discloses the step of “registering the subscribers and publishers,” in general (and therefore the Office Action has also not explained where Angelo discloses the step of “registering the subscribers and publishers,” including the other emphasized features as well).

Regarding the next feature of the claim excerpt emphasized above, in claims 1, 10, 19 and 26 there is an “event server” with which the publishers and subscribers, principals, or nodes are registered, which is not mentioned in column 3, lines 21-63, cited by the Examiner. Network connection 208 in FIG. 2 is illustrated as a simple line, and Angelo states (column 7, lines 48-51),

Although Magic Packet<sup>TM</sup> or similar technology is not limited to anyone particular type of network connection 208, a 10BASE-T, 100-BASE-T, or similar connection 208 is preferred.

Thus, Angelo implies that, in contrast to claim 1, network connection 208 is just a simple Ethernet or line connection, without any event server. Since the burden of proof is upon the Examiner to establish the validity of a rejection, the burden of proof is upon the Examiner to

prove that Angelo discloses an event server or that network connection 208 includes an event server. Cf. MPEP 2112 and cf. MPEP 2107.02, p. 2100-41, left column, which states

See, e.g., *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992) (“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability....”)

Further, regarding the next two emphasized features in the excerpt of claim 1 above, in response to registering, the event server of claims 1, 10, 19, and 26 is configured to determine (1) whether the publishers, principals, or nodes are authorized to produce certain events and (2) whether the subscribers, principals, or nodes are authorized to receive the certain events. Thus, even if *arguendo* there were some way of construing Angelo to include an event server, there is no disclosure in column 3, lines 21-63, of the manner in which the event server is configured, and therefore there is no disclosure in column 3, lines 21-63, of the event server being configured to check the authorization of subscribers, publishers, principals, or nodes to send or receive certain events, as recited in claims 1, 10, 19 and 26.

Finally, column 3, lines 40 and 41 refer to “prior to **broadcast** to the network” (emphasis added) and lines 59 and 63 refer to a “**broadcast** message” (emphasis added), whereas claim 1, lines 13 and 14, recites, “generating a group session key ... for establishing a **multicast** group” (emphasis added). Similar limitations are recited in claim 10, lines 13 and 14, claim 19, lines 1, 2 and 9-12, and claim 26, lines 14 and 15. Column 3, lines 21-63, does not discuss multicasting or establishing a multicast group. Although Angelo (column 9, lines 1-15) incidentally mentions that interface controller 122 also accepts multicast frames, there is no disclosure in column 3, lines 21-63, or column 9, lines 1-15, of generating a group session key for establishing a multicast group, as recited in the last paragraph of claims 1, 10, and 26. In other words, in contrast to column 3, lines 21-63, and column 9, lines 1-15 of Angelo, in claims 1, 10, and 26,

the group session key and the multicast group are linked in that the group session key is used to establish the multicast group in the case of claims 1, 10 and 26. Similarly, in contrast to column 3, lines 21-63, and column 9, lines 1-15 of Angelo, claim 19 is a computer configured as an event server that is “for establishing multiple secure multicast groups” (the preamble, lines 1 and 2 of claim 19), and by virtue of the multicast groups being part of a function recited in the preamble the multicast groups are linked to the body of the claim that follows in that the body of the claim describes features (e.g. the group session key) for carrying out the functions described in the preamble. Claim 19 further recites (in the body of the claim) one or more processors that generate a group session key that is updated by utilizing a change in passwords to modify an object corresponding to the event directory, which is also not discussed in Angelo, column 3, lines 21-63.

#### **B. Dependent Claims**

Claims 2-9, 11-18, 20-25, and 27-30 are dependent claims, each of which depends (directly or indirectly) on one of the claims discussed above. Each of claims 2-9, 11-18, 20-25, and 27-30 is therefore allowable for the reasons given above for the claim on which it depends. In addition, each of claims 2-9, 11-18, 20-25, and 27-30 introduces one or more additional features that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of all such features is not included at this time.

#### **III. CONCLUSIONS & MISCELLANEOUS**

For all the foregoing reasons, claims 1-30 are believed to be in allowable condition, and


therefore the Examiner is respectfully requested to allow this application. The Examiner is invited to contact the Applicants' representative at the number below regarding any matters that may advance the prosecution or any other matters related to this application.

The Commissioner is hereby authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-1302 and to credit any excess fees to such deposit account.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP


Dated: June 24, 2003

  
David Lewis  
Registration No. 33,101

1600 Willow Street  
San Jose, California 95125-5106  
(408) 414-1213  
Facsimile: (408) 414-1076

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

on June 25, 2003 by   
Teresa Austin